THREATENED & ENDANGERED SPECIES

GULF STURGEON

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During the late 19th and early 20th Centuries, many species of fish and wildlife were driven into extinction or near extinction by mankind's affect on natural habitats and exploitation of the world's natural resources.

The Gulf sturgeon is just one of the many species that has stood on the brink of extinction.

"The major decline in the Gulf sturgeon population can be attributed to over fishing," said Frank Parauka, USFWS Fishery Biologist with the Panama City Ecological Services Field Office. "The high value of caviar, and to a lesser extent the flesh, made the Gulf sturgeon very desirable."

According to the Mississippi Department of Wildlife, Fisheries & Parks, 24,000 pounds of Gulf sturgeon were taken from the Pascagoula River in 1902. A predecessor of the modern-day U.S. Fish and Wildlife Service, U.S. Commission of Fish and Fisheries records indicate that 100,000 pounds of sturgeon were harvested from Alabama waters in 1903.

Perhaps the greatest recorded loss from over fishing of the Gulf sturgeon occurred in Florida. From 1886-1901 the harvest steadily increased annually from 1,500 to 84,000 pounds. In 1902 harvests of over 259,000 pounds were recorded. This record year perhaps also signaled the start of the decline in Gulf sturgeon population as harvest records steadily declined thereafter down to 3,500 pounds by 1945.

A subspecies of the Atlantic sturgeon, the ancestry of the Gulf sturgeon dates back 200 million years. Even though the Gulf sturgeon can obtain lengths of over nine feet and are capable of living up to 40 years, these fish do not reach sexual maturity until they are 7-21 years old and weigh from 50-150 pounds. These fish are long lived and very slow in growing.

Photo by Dennis Holt

The Gulf sturgeon is one of 27 species of sturgeon.

Photo by Dennis Holt

Representatives of the Alabama Department of Conservation and Natural Resources and the U.S. Fish and Wildlife Service hold a Gulf sturgeon.

An anadromous fish, the Gulf sturgeon migrates from marine environments to freshwater to breed. It is estimated that a female sturgeon produces 400,000 eggs per spawning season; yet spawning may only occur every other year.

Young sturgeon remain in freshwater for up to six years before they migrate to saltwater. Many reports indicate that adult and sub-adult Gulf sturgeon fast and lose weight, some up to 30 percent of their total body weight, while in fresh water, and then compensate the loss during winter feeding in the estuarine and marine habitat.

The inability to reach their historical spawning grounds is just one of the current threats to the species. Although Federal law banned commercial harvesting of the sturgeon in 1991, major threats to the Gulf sturgeon still exist including habitat loss, barriers to spawning grounds, and poor water quality.

Even though the Gulf sturgeon have few natural enemies, human activities can threaten the species.These include new dam construction, poorly planned navigation projects including dredging activities, alteration of habitat, dredged material disposal on habitats essential for sturgeon (feeding areas, spawning and resting areas, etc.), as well as groundwater withdrawal which reduces or eliminates important cool water habitat needed during the summer, contaminant introductions, and water quality degradation.

Another major threat to Gulf sturgeon survival is urbanization. Shoreline development on estuaries, bays and streams contribute to loss of habitat. Runoff from dirt roads and poor agriculture practices have contributed to heavy sediment loads in the river systems which inhibits spawning.

Aquaculture, the rearing of non-native sturgeon for meat and caviar is yet another threat to survival. The potential of captive fish to escape from a facility and hybridize with native fish increases the habitat competition and the possibility of disease transfer.

All species of fish and wildlife need to be preserved for a multitude of reasons. The fossil ancestry of the Gulf sturgeon dates back more than 200 million years but this lineage is not the only characteristic of the fish that makes it worth recovering.

The fish is unique in that it is occupies the most southern range of all the 27 sub-species of sturgeon. The fish is an excellent indicator of the health of the aquatic system. It is found in a wide diversity of habitats and has persisted in less than optimal conditions. However, if the decline continues, we have to be very concerned that the habitat has experienced additional degradation.

There is also another reason to preserve the species that may one day help many people world-wide.

According to Fishery experts, once recovered, the species has a lot of economic potential if managed prudently. The sturgeon, like sharks, have no history of cancers and may provide some important medical information to combat this disease.

Although historical accounts vary as to the size and weight of fish that have been taken, the largest documented Gulf sturgeon was caught at the mouth of the Mississippi River in 1936 and weighed 503 pounds.

Federally listed as a threatened species in 1991 under the Endangered Species Act, it is hoped that the Gulf sturgeon can one day recover. To aide in this recovery, many public and private organizations are cooperatively working to achieve this goal.

"We are looking at a living dinosaur, a 250-million-year old animal that probably has not changed much throughout its existence," Parauka said. "Once this fish is extirpated it is gone forever."